

**ORGANIC DATA VALIDATION REPORT**

To: Kristie Warr, Weston Solutions, Inc.  
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Report Date: April 27, 2013  
Project/Site: West Fertilizer, Inc. Explosion  
Laboratory No: 280-41269-1

This memo presents the organic data validation report for the data obtained during the field activities for the above referenced work assignment. The purpose of this review is to provide a technical Level II validation of the following soil samples collected on April 21, 2013 and analyzed by TestAmerica Laboratories, Inc.:

Field Sample Numbers	Laboratory ID	Analyses
WFE10-01-51-20130421	280-41269-1	Semivolatiles by Method 8270C Organophosphorous Pesticides by Method 8141B Herbicides by Method 8151A Glyphosate by Method 8321A
WFE11-01-51-20130421	280-41269-2	Semivolatiles by Method 8270C Organophosphorous Pesticides by Method 8141B Herbicides by Method 8151A Glyphosate by Method 8321A
WFE12-01-51-20130421	280-41269-3	Semivolatiles by Method 8270C Organophosphorous Pesticides by Method 8141B Herbicides by Method 8151A Glyphosate by Method 8321A
WFE12-01-52-20130421	280-41269-4	Semivolatiles by Method 8270C Organophosphorous Pesticides by Method 8141B Herbicides by Method 8151A Glyphosate by Method 8321A

Data validation was conducted in accordance with the USEPA CLP National Functional Guidelines for Evaluating Organics Analyses, June 2008, the Test Methods for Evaluating Solid Wastes, SW-846, 3rd Edition, and the appropriate USEPA Methods.

Level II validation was performed on the samples as defined by the Handbook of Environmental Analysis provided by Weston Solutions, Inc. The data were evaluated based on the following parameters:

- \* Data Completeness
- \* Holding Times and Preservation
- Blanks
- Surrogate Recoveries
- \* Matrix Spike/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- \* Field Duplicates
  
- \* **All criteria were met for this parameter**
- NA Not applicable**

### Data Completeness

All data necessary to complete a Level II data validation were provided for all analyses.

All soil samples for Method 8270C (SVOCs) were analyzed at a 4-fold dilution due to the sample matrix. All soil samples for Method 8151A (herbicides) were analyzed at a 10-fold dilution due to the sample matrix. Raw data were not provided or evaluated for this Level II package to verify results and analytical dilution.

The laboratory correctly “T, J, N” flagged SVOC tentatively identified compounds (TIC). Detected TIC results are qualified as estimated (NJ) unless qualified as not detected for blank contamination.

### Holding Times and Preservation

The samples were analyzed within the required holding times. The samples were received within the  $4 \pm 2^{\circ}\text{C}$  QC limit. No shipping or receiving problems were noted.

### Blanks

Method blanks were extracted and analyzed at the required frequency. No contaminants were found in these blanks with the following exceptions:

SVOCs: Two TICs were detected in the method blank. One of these compounds was also detected in a field sample. Therefore, the following TIC result was qualified as undetected (U):

- Benzene-1,2,3,4,d4-, 5,6-dichloro- in sample WFE12-01-52-20130421

Glyphosate: Glyphosate was detected in the method blank above the method detection limit (MDL) but below the reporting limit (RL). Detected results were not reported for this compound, and no action was taken.

No field blank samples were submitted with this SDG.

### Surrogate Recoveries

Surrogate compounds were added to the samples and QC samples. The surrogate percent recoveries were within laboratory QC limits with the following exceptions:

Herbicides: The recovery for 2,4-dichlorophenylacetic acid on one column in one sample was below laboratory QC limits and in another sample was above laboratory QC limits. Since all samples were analyzed at a 10-fold dilution the surrogates are considered diluted

out. No action was taken.

#### Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) were provided for organophosphorous pesticides. The percent recoveries and relative percent differences (RPDs) were within laboratory QC limits.

#### Laboratory Control Samples/Laboratory Control Sample Duplicates

Laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) analyses were provided. The percent recoveries and RPDs were within laboratory QC limits with the following exceptions:

Herbicides: 2,4-D; 2,4,5-T; and picloram were recovered above laboratory QC limits in the LCSD. Detected results were not reported for these compounds, and no action was taken.

#### Field Duplicates

Soil field duplicate samples WFE12-01-51-20130421 and WFE12-01-52-20130421 were analyzed in this SDG. Field duplicate precision criteria were met (i.e., for results greater than five times the reporting limit, RPDs were less than 50% for soil samples and for results less than five times the reporting limit, the difference between the duplicate and the original was less than 3.5 times the reporting limit). No qualifications were applied based on field duplicate precision.

### DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

- R - Reported value is “rejected.” Resampling or reanalysis may be necessary to verify the presence or absence of the compound.
- J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.
- U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Element or compound was not detected.
- N J - Estimated value of a tentatively identified compound. (Identified with a CAS number.) ORGANICS analysis only.
- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- NR - Result was not used from a particular sample analysis. This typically occurs when more than one result for a compound is reported due to dilutions and reanalyses.